ANDRIANOV, K.A.; GOLUBTSOV, S.A.; TROFIMOVA, I.V.; TURETSKAYA, R.A.; KRYLOV, V.D.

Changes of catalytic activity of silicon-copper alloys in the course of direct synthesis of chloroethylsilane. Izv. AN SSSR. Otd. khim. nauk. no.2:157-165 F '58. (MIRA 11:4)
(Silane) (Silicon--Copper alloys) (Catalysis)

TURETSKAYA, R. A.; GOLUBTSOV, S. A.; TROFIMOVA, I. V.; ANDRIANOV, K. A.

Effect of some kinetic and hydrodynamic conditions on the direct synthesis of ethylchlorosilanes. Khim. prom. no.3: 171-178 Mr '63. (MIRA 16:4)

(Silane)

GOLUBTSOV, S. A.; TURETSKAYA, R. A.; ANDRIANOV, K. A.; VABEL', Ya. I.
[deceased]

Reactions involved in the formation of alkyl (aryl) chlorosilanes in the direct interaction between alkyl (aryl) chloride and silicon. Report No. 3: Direct synthesis of ethyldichlorosilane. Izv. AN SSSR. Otd. khim. nauk no.1:87-90 '63. (MIRA 16:1)

(Silane)

GOLUBTSOV, S.A.; ANDRIANOV, K.A.; TURETSKAYA, R.A.; BELIKOVA, Z.V.;
TROFIMOVA, I.V.; MOROZOV, N.G.

Reaction mechanism underlying the formation of dialkyldichlorosilanes.
Dokl. AN SSSR 151 no.6:1329-1331 Ag '63. (MIRA 16:10)

1. Chlen-korrespondent AN SSSR (for Andrianov).

TURETSKAYA, R.A.; GOLUBTSOV, S.A.; ANDRIANOV, K.A.; TSVANGER, T.A.;
PRIGOZHIN, B.Yu.

Direct synthesis of ethylchlorosilanes. Khim.prom. no.1:18-20 Ja '63. (MIRA 16:3)

(Silane)

L 13349-63 EWP(j)/EPF(c)/EWT(m)/BDS ASD Pc-4/Pr-4 RM/WW

ACCESSION NR: AP3002627 S/0079/63/033/006/2015/2018

65
64

AUTHOR: Turetskaya, R. A.; Trofimova, I. V.; Andrianov, K. A.; Golubtsov, S. A.

TITLE: The question of the role of the phase structure of silicon-copper contact masses in the direct synthesis of ethylchorosilanes

SOURCE: Zhurnal obshchey khimii, v. 33, no. 6, 1963, 2015-2018

TOPIC TAGS: phase structure, silicon-copper, synthesis, ethylchorosilane, Cu sub 3 Si, silane, catalyst, ethyl chloride, dehydrochlorination, ethydichlorosilane, diethyldichlorosilane

ABSTRACT: According to data obtained as well as literature, the role of the intermetallic Cu sub 3 Si compound, which disintegrates because of Si reacting with ethylchloride and which is regenerated in the process, consists in the formation (silanes) and partial renewal (of the catalyst). The concentration of Cu sub 3 Si does not determine selective activity of catalyst activity in ethyl chloride reaction; product yields are essentially the same whether contact mass is all Cu sub 3 Si, or just a mixture of Cu and Si (pure or with additives) where there is no Cu sub 3 Si, Cu provides the catalytic activity; the generation

Card 1/2

---

up

ethy

synthes

Cu-catalyst is almost

decrease in catalytic activity

de the selective formation of

ichlorosilane) in the direct

e, 2 tables.

ASSOCIATION:

SUBMITTED: 26Apr62

TE ACQ: 20Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 010

OTHER: 001

2/2

L 10595-63 EWP(j)/EPF(c)/EWT(m)/BDS ASD Pc-4/Pr-4 RM/WW

ACCESSION NR: AP3000943 S/0064/63/000/003/0011/0018

65

AUTHOR: Turetskaya, R. A.; Golubtsov, S. A.; Trofimova, I. V.; Andrianov, K. A.

TITLE: The influence of some kinetic and hydrodynamic conditions on the direct synthesis of ethylchlorosilanes

SOURCE: Khimicheskaya promyshlennost', no. 3, 1963, 11-18

TOPIC TAGS: Cu-Si alloy, kinetic conditions, hydrodynamic conditions, ethylchlorosilane

ABSTRACT: The optimum particle size of Cu-Si alloy (75-250 microns) for the direct synthesis of ethylchlorosilanes, and the critical rate of fluidizing the alloy in the stream of ethyl chloride in reactors of 20-100 mm diameter, were determined. Investigation of reagent contact time, in intervals from 0.3-6.6 sec., on the course of reaction showed composition of reaction products was practically independent of contact time. Optimum synthesis temperature was 360-380C (300-390 degrees range investigated). Change in properties of catalyst and its effect on reaction with ethyl chloride was investigated. Orig. art. has: 16 figures.

ASSOCIATION: none

Card 1/2

TURETSKAYA, P.Kh.; KLYUSHKINA, N.S.

Shoot ringing on parental plants as a method of propagation.
Fiziol.rast. 6 no.6:721-723 N-D '59. (MIRA 13:4)

1. K.A. Timiriazev Institute of Plant Physiology, U.S.S.R.
Academy of Sciences, Moscow.

(Plant cuttings)

Turetskaya, K.A.

AUTHORS: Andrianov, K. A., Golubtsov, S. A., Trofimova. I. V., Turetskaya, R. A., Krylov, V. D. 62-2-5/28

TITLE: On the Modifications of the Catalytic Activity of Silicon--Copper Alloys in the Process of Direct Synthesis of Ethylchlorosilanes (Ob izmeneniyakh kataliticheskoy aktivnosti kremnemednykh splavov v protsesse pryamogo sinteza etilkhlorsilanov).

PERIODICAL: Izvestiya AN SSSR Otdeleniye Khimicheskikh Nauk, 1958, Nr 2, pp. 157-165 (USSR).

ABSTRACT: The direct synthesis of alkyl- and arylchlorosilanes by the influence of the haloid derivative upon elementary silicon in the presence of a copper catalyst was already described in several papers. But only scarce and insufficient data exist on the fact that the activity of the contact silicon--copper mass slowly decreases in the process of synthesis. Concrete reports on the reason for the modification of activity have hitherto not been published. In the present paper the following is said on the result of the experiment: It was found that in the interaction of the silicon-copper alloys with ethylene chloride their activity is highly re-

Card 1/2

On the Modifications of the Catalytic Activity of Silicon-Copper Alloys in the Process of Direct Synthesis of Ethylchlorosilanes. 62-2-5/28

duced, i.e. to the extent to which silicon enters into reaction (formation of ethylchlorosilanes). It was found that for alloys with a low content of copper (5-9%) the lines of the general activity in the reaction of the formation of diethylchlorosilane run over 2 maxima. In alloys with a high copper-content (~25%) the presence of only one selective maximum and one maximum of the general activity was determined. It is assumed that the interaction of ethyl chloride with silicon-copper alloys is composed of two parallel processes: a) the reaction with silicon of the intermetallic compound Cu_3Si with simultaneous separation of active copper; b) reaction with free silicon in the presence of the separated copper as catalyst. On the basis of this hypothesis the variability for alloys with a diverse content of copper can be explained. During the reaction carbon is to a considerable extent deposited at the surface of copper which may also contribute to a decrease in the activity of the mass. There are 2 figures, 7 tables, and 5 Slavic references.

SUBMITTED: August 22, 1956
AVAILABLE: Library of Congress
Card 2/2

1. Silicon-copper alloy catalysts 2. Ethylchlorosilanes-Synthesis

S/062/63/000/001/012/025
B101/B186

AUTHORS: Golubtsov, S. A., Turetskaya, R. A., Andrianov, K. A., and Vabel', Ya. I. (Deceased)

TITLE: Formation of alkyl (aryl) chloro silanes by direct reaction of an alkyl (aryl) chloride with silicon. Communication 3. Direct synthesis of ethyl dichloro silane

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 1, 1963, 87 - 90

TEXT: In a previous paper (Izv. AN SSSR, Otd. khim. n. 1962, 1788) the synthesis of ethyl dichloro silane (I) by reaction of ethyl chloride with Si in the presence of Cu had been studied, and the following pattern found: $C_2H_5Cl \xrightarrow{Cu} C_2H_4 + HCl$ (1); $HCl + C_2H_5Cl + Si \xrightarrow{Cu} C_2H_5SiHCl_2$ (2). The yield of I dropped from initial ~75% after 30 min to a constant level of 15-25% due to the decreasing rate of reaction (1). The objective of the present study was an increase in the yield of I by adding Cu-Si alloy during the reaction. The synthesis was carried out in a fluidized bed of the Cu-Si

Card 1/2

Formation of alkyl ...

S/062/63/000/001/012/025
B101/B186

alloy containing 17% Cu at 370°C. Results: After 5 hrs reaction, the content of I in the reaction product was 12-19%; the other components of the reaction product were ethyl trichloro silane and diethyl dichloro silane. 20 min after adding 13% fresh Cu-Si alloy, the content of I rose to 51.5 - 59%, the rate of formation of ethyl chloro silanes had increased to the 2.5-fold. In a continuous experiment with supply of Cu-Si every 30 min, the process was stabilized after 18 hrs. The Cu content in the contact mass rose from 17 to about 35%, the content of I from 15-23 to 50-55%, and the formation of ethyl chloro silanes from 418 g/hr to 725 g/hr per kg of alloy. These values remained constant for 240 hrs. There are 3 figures and 2 tables.

SUBMITTED: April 25, 1962

Card 2/2

TURETSKAYA, R.A.; GOLUBTSOV, S.A.; TROFIMOVA, I.V.; ANDRIANOV, K.A.;
Prinimali uchastiye: LAYNER, D.I.; SOTNIKOVA, L.I.;
MALYSHEVA, L.A.

Effect of the admixture of some metals on the activity of silicon-copper alloys in the reaction with theyl chloride. Zhur.prikl.khim. 35 no.7:1496-1502 Jl '62. (MIRA 15:8)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut obrabotki tsvetnykh metallov (for Layner, Sotnikova, Malysheva).
(Silicon-copper alloys) (Ethane) (Metals)

TURETSKAYA, R.A.

USSR/ Physical Chemistry - Kinetics. Combustion. Explosives. Topochemistry. Catalysis B-9

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11292

Author : Andrianov K.A., Golubtsov S.A., Trofimova I.V., Denisova A.S., Turetskaya R.A.

Inst : Academy of Sciences USSR

Title : On the Role of Copper in the Reaction between Ethyl Chloride and Silicon

Orig Pub : Dokl. AN SSSR, 1956, 108, No 3, 465-468

Abstract : A study was made of the influence of Cu-content of silicon-copper alloys on their interaction with C_2H_5Cl (I); among the reaction products were found $C_2H_5SiHCl_2$, $C_2H_5SiCl_3$, $(C_2H_5)_2SiHCl$, $(C_2H_5)_2SiCl_2$ (II) and a number of liquid and gaseous products. Catalytic activity of alloys was evaluated on the basis of the content, in the reaction products, of II, the formation of which takes place according to the most advantageous reaction: $2C_2H_5Cl + Si \rightarrow (C_2H_5)_2SiCl_2$, involving no loss of organic radicals. With decrease in Cu-content of the alloy from 70 to 5%, content of II in the reaction products increases from 20 to 45-50%. It is shown that drop in catalytic activity of alloys with high Cu-content is due not to thermal

1/2

USSR/ Physical Chemistry - Kinetics. Combustion. Explosives. Topochemistry. Catalysis B-9

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11292

decomposition of products (which is slight under the conditions of the synthesis), but to catalytic decomposition of I in the presence of Cu, according to the reaction: $C_2H_5Cl \rightarrow C_2H_4 + HCl$ and subsequent reactions: $C_2H_5Cl + 2HCl + Si \xrightarrow{Cu} C_2H_5SiCl_3 + H_2$ and $2C_2H_5Cl + 4HCl - Si \xrightarrow{Cu} 2C_2H_5SiHCl_2 + H_2$.

2/2

ANDRIANOV, K.A.; TURETSKAYA, R.A.; GOLUBTSOV, S.A.; TROFIMOVA, I.V.

Formation reactions of alkul(aryl)chlorosilanes in the direct interaction of alkyl(aryl) chlorides with silicon. Report No. 12: Effect of hydrogen chloride on the formation of ethylchlorosilanes. Izv. AN SSSR.Otd.khim.nauk no.10:1788-1794 O '62. (MIRA 15:10)
(Silane) (Hydrochloric acid)

TURETSKAYA, R.A.

36459.
K Voprosv O Rezektsii Verkhushki Kornya. Stomatolo-Giya, 1949, No. 4, S. 41-45.

SO: Letopis' Zhurnal'nykh Statey, Vol. 49, Moskva, 1949

S/064/63/000/001/002/007
B101/B186

AUTHORS: Turetskaya, R. A., Golubtsov, S. A., Andrianov, K. A., Tsvanger, T. A., Prigozhin, B. Yu.

TITLE: Direct synthesis of ethyl chlorosilanes

PERIODICAL: Khimicheskaya promyshlennost', no. 1, 1963, 18 - 20

TEXT: A method of directly synthetizing ethyl chlorosilanes in a fluidized bed at 360 - 380°C, wherein ethyl chloride is caused to react with a copper-silicon alloy was described by these authors in a series of previous studies (DAN SSSR, 108, 465 (1956); ZhPKh, 35, 1496 (1962); Izv. AN SSSR, OKhN, no. 10, 1788 (1962); ibid. no. 1, 87 (1963)). For comparison, data of lab tests and experiments in a pilot plant with a reaction vessel (of 300 mm diameter and a charge capacity of 250 kg alloy) are given in the present paper. The above data were found to be consistent except for the ethyl chlorosilane yield per hr and kg of contact mass, this being 270 - 700 g in lab tests and 60 - 100 g in the pilot plant. The difference is due to the longer contact time (approximately 20 sec) in the pilot plant. The percentage of the resulting mixture of ethyl chlorosilanes is given in the following sequence: head fraction;

Card 1/3

$C_2H_5SiHCl_2$; $C_2H_5SiCl_3$; $(C_2H_5)_2SiHCl$; $(C_2H_5)_2SiCl_2$, and residue. The data of lab tests in method A are the following, contact mass of Cu-Si alloy containing 20 % Si: 0, 27, 20, 7, 37, 9; method B, addition of 27 - 28 % by volume of H_2 during the experiment: 3, 41, 16, 11, 18, 10; method C, addition of 20 - 23.5 % by volume of HCl during the experiment: 11, 49, 16, 4, 16, 6; method D, addition of alloy during the experiment: 2, 51, 18, 5, 16, 8, and method E contact mass Cu-Si alloy containing 10 % Si an promoted by 0.003 % Sb: 0, 14, 13, 9, 56, 8. For the pilot plant experiments, these data are 3,22, 37, 0, 30, 8 for method A, 11, 42, 27, 0.13, 7 for method B, 3, 46, 27, 0, 17, 7 for method C, 3, 36, 30, 0, 20, 11 for method D, and 4, 20, 28, 0, 38, 10 for method E. The alloy promoted by Sb showed an increase in selectivity and in diethyl dichlorosilane yield, whereas the ethyl chloride consumption was 17 % lower. An HCl addition during the experiment inhibited considerably the formation of ethylene and ethane by dehydrochlorination of ethyl chloride. The synthesis of polyethyl siloxanes from ethyl chlorosilanes is compared with that from ethyl ethoxysilanes. In the first case, 3.2 t and in the second case 10.0 t of raw material is required per ton of liquid. The output of the apparatus per unit volume, calculated for $(C_2H_5)_2SiO$ is

Direct synthesis of ethyl ...

S/064/63/000/001/002/007
B101/B186

70 g/hr·l in the first case and 2.4 g/hr·l in the second case. Further improvements are possible by increasing the yield of diethyl dichlorosilane and by complete inhibition of the formation of dehydrochlorination products. There are 2 figures and 4 tables.

Card 3/3

37753

5.3700
11.1250

S/661/61/000/006/004/081
D205/D302

AUTHORS: Trofimova, I. V., Andrianov, K. A., Golubtsov, S. A., ~~Turetskaya,~~ R. A., Belyakova, Z. V., Yakusheva, T. M., Lobusevich, N. P. and Luzganova, M. A.

TITLE: On the regulation of the composition of products in the direct synthesis of methyl- and ethyl chlorosilanes in a fluidized bed

SOURCE: Khimiya i prakticheskoye primeneniye kremneorganicheskikh soyedineniy; trudy konferentsii. no. 6, Doklady, diskussii, resheniye. II Vses. konfer. po khimii i prakt. prim. kremneorg. soyed., Len., 1958. Leningrad, Izd-vo AN SSSR, 1961, 25-27

TEXT: Regulation of the process is one of the main problems in preparing monomeric organosilicon compounds. The most interesting results were obtained during the attempt to regulate the product composition by varying the preparation procedure of the catalyst.

Card 1/3

4

S/661/61/000/006/004/081
D205/D302

On the regulation ...

This method opens wide possibilities as can be judged from the obtained data. Thus a synthesis carried out on a Si-Cu melt containing 15 - 20% Cu gave 6% CH_3HSiCl_2, 30 - 40% $(CH_3)_2$ $SiCl_2$ and 40% CH_3SiCl_3, while the synthesis on a Si-Cu melt activated by cuprous chloride gave 6% CH_3HSiCl_2, 55% $(CH_3)_2SiCl_2$ and 25% CH_3SiCl_3. Further modifications of the catalyst bring about further changes in the composition. Preliminary experiments on the production of methyl chlorosilanes from methane, were performed. Methyl dichlorosilane can be prepared in this way, with trichlorosilane and silicon by-products which can be utilized. For synthesis of ethyl chlorosilanes other methods of regulating the product composition were employed: Preliminary treatment of the Si-Cu catalyst by various gases at elevated temperatures, dilution of ethyl chloride by gases and activation of the ethyl chloride by minor additions. The most interesting results were obtained with preliminary treatment by air at 370°C. About 45% of diethyl chlorosilane was present in the product using a catalyst treated in this way. Dilution

X

Card 2/3

S/

On the regulation ...

S/661/61/000/006/004/081
D205/D302

of EtCl with HCl and the introduction of 0.5 - 0.7% moisture increases the ethyl dichlorosilane content of diethyl dichlorosilane. There are 1 figure and 3 tables.

Card 3/3

X

TURETSKAYA, Rakhil' Khaimovna; CHAYLAKHYAN, M.Kh., prof., otv. red.; PASHKOVSKIY, Yu.A., red. izd-va; YEPIFANOVA, L.V., tekhn. red.

[Instructions for the use of growth promoting substances in the vegetative propagation of plants]Instruktsiia po primeneniiu stimuliatorov rosta pri vegetativnom razmnozhenii rastenii. Moskva, Izd-vo Akad. nauk SSSR, 1962. 69 p. (MIRA 16:2)

1. Chlen-korrespondent Akademii nauk Armyanskoy SSR (for Chaylakhyan).
(Growth promoting substances) (Plant cuttings)

KRYLOV, V.D.; TURETSKAYA, R.A.; LEL'CHUK, S.L.

Study of the phase composition of nonalloyed silicon-copper contact masses for the direct synthesis of alkyl chlorosilanes. Zhur. fiz. khim. 37 no.6:1377-1381 Je '63. (MIRA 16:7)

(Silane) (Copper silicide)

TURETSKAYA, R.A.; TROFIMOVA, I.V.; ANDRIANOV, K.A.; GOLUBTSOV, S.A.

Role of the phase composition of silicon-copper contact masses in the direct synthesis of ethylchlorosilanes. Zhur.ob.khim. 33 no.6:2015-2018 Je '63. (MIRA 16:7)
(Silane) (Copper-silicon alloys)

L 39718-66 EWT(m)/EWP(j)/T RM/GD-2

ACC NR: AP6007969 (A) SOUCE CODE: UR/0191/66/000/003/0036/0037

AUTHOR: Turetskaya, R. A.; Golubtsov, S. A.; Dzvonar', V. G.

12
11
B

ORG: none

TITLE: Synthesis of triphenylchlorosilane from silicon tetrachloride and phenylsodium

SOURCE: Plasticheskiye massy, no. 3, 1966, 36-37

TOPIC TAGS: organic synthetic process, silicon compound, organosilicon compound

ABSTRACT: Tetraphenylsilane was prepared from silicon tetrachloride and phenylsodium by the known reaction (Polis, Ber. 18, 1514, 1885). The authors studied the possibility of preparing triphenylchlorosilane from these reagents. By a thorough purification of benzene chloride and the solvent (by a treatment with calcium hydride, phosphorus pentoxide, and subsequently with H_2SO_4) a 82-91% yield of phenylsodium was obtained from benzene chloride and sodium in toluene solution. Phenyl sodium was transferred to a mixing flask containing 33 wt.% $SiCl_4$ in toluene. After 1 hr of mixing, the reaction mixture was filtered in a N_2 atmosphere and fractionally distilled at ≤ 90, 90-170, 170-180, 180-220, 220-237, and 237-250C. A 70-74% yield of triphenylchlorosilane was obtained in fractions at 220-250C. Tetraphenylsilane (9-14%) and diphenyldichlorosilane (6-8%) were among the reaction products. The residue still contained 3.2% chlorine. A change of temperature from -30 to +20C did not affect the yield.

Card 1/2

UDC: 546.281

L 39718-66

ACC NR: AP6007969

The highest yield was obtained when using the 3:1 ratio of $C_6H_5Cl:SiCl_4$. The authors thank S. S. Churanova for advice. Orig. art. has: 1 fig.

SUB CODE: 07/ SUBM DATE: none/ OTH REF: 009

Card 2/2 ~~dl~~ S

L 47358-66 EWT(m)/EWP(j) RM

ACC NR: AP6030558 (AN) SOURCE CODE: UR/0413/66/000/016/0033/0033

INVENTOR: Tsvanger, T. A.; Rostunov, V. F.; Golovnya, B. A.; Turetskaya, R. A.; Golubtsov, S. A.; Layner, D. I.; Malysheva, L. A.; Komrakova, V. V.; Yezerets, M. A.; Maslyukov, A. I.; Nastasin, A. A.

30

ORG: none

15

TITLE: Method of obtaining phenylchlorosilane. 1 Class 12, No. 184855, [announced by State Scientific Research Institute of State Design and Planning Scientific Research for the Processing of Nonferrous Metals (Gosudarstvennyy nauchno-issledovatel'skiy institut "Giprotsvetmetobrabotka")]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 33

TOPIC TAGS: phenylchlorosilene, chlorobenzene

ABSTRACT: An Author Certificate has been issued for obtaining phenylchlorosilanes by the reaction of chlorobenzene with the silicon-copper contact mass in the presence of an activator. To raise the yield of diphenyldichlorosilane and to

Card 1/2 UDC: 547.419.5.07

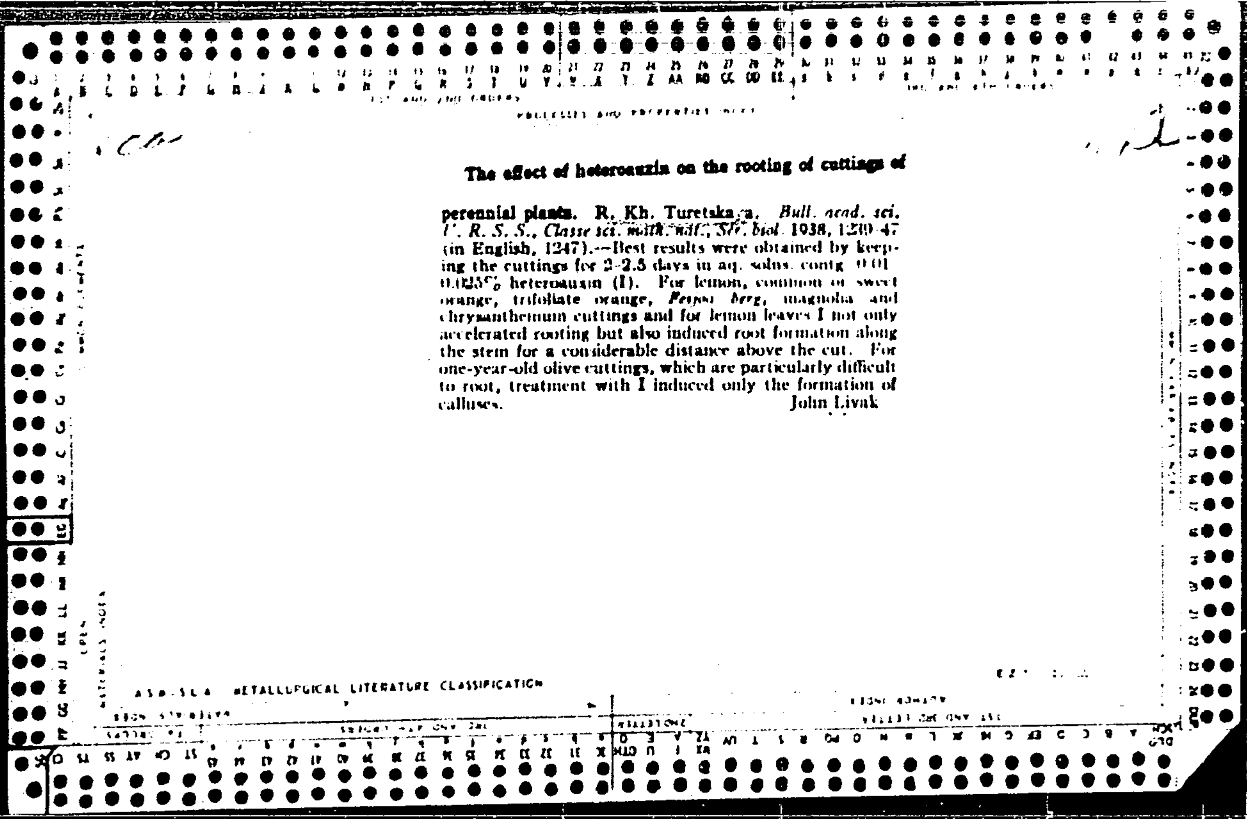
L 47358-66

ACC NR: AP6030558

increase the efficiency of the process, zinc oxide, in amounts up to 4%, is used as the activator. [Translation] [NT]

SUB CODE: 11/ SUBM DATE: 01Dec64/

Card 2/2 mt



PROCESSES AND PROPERTIES INDEX

The effect of heteroauxin on the rooting of cuttings of perennial plants. R. Kh. Turetskaya. *Bull. acad. sci. U. R. S. S., Classe sci. math. nat., Sér. biol.* 1938, 1239-47 (in English, 1247).—Best results were obtained by keeping the cuttings for 2-2.5 days in aq. solns. contg. 0.01-0.025% heteroauxin (I). For lemon, common or sweet orange, trifoliate orange, *Feijoa berg*, magnolia and chrysanthemum cuttings and for lemon leaves I not only accelerated rooting but also induced root formation along the stem for a considerable distance above the cut. For one-year-old olive cuttings, which are particularly difficult to root, treatment with I induced only the formation of calluses.

John Livak

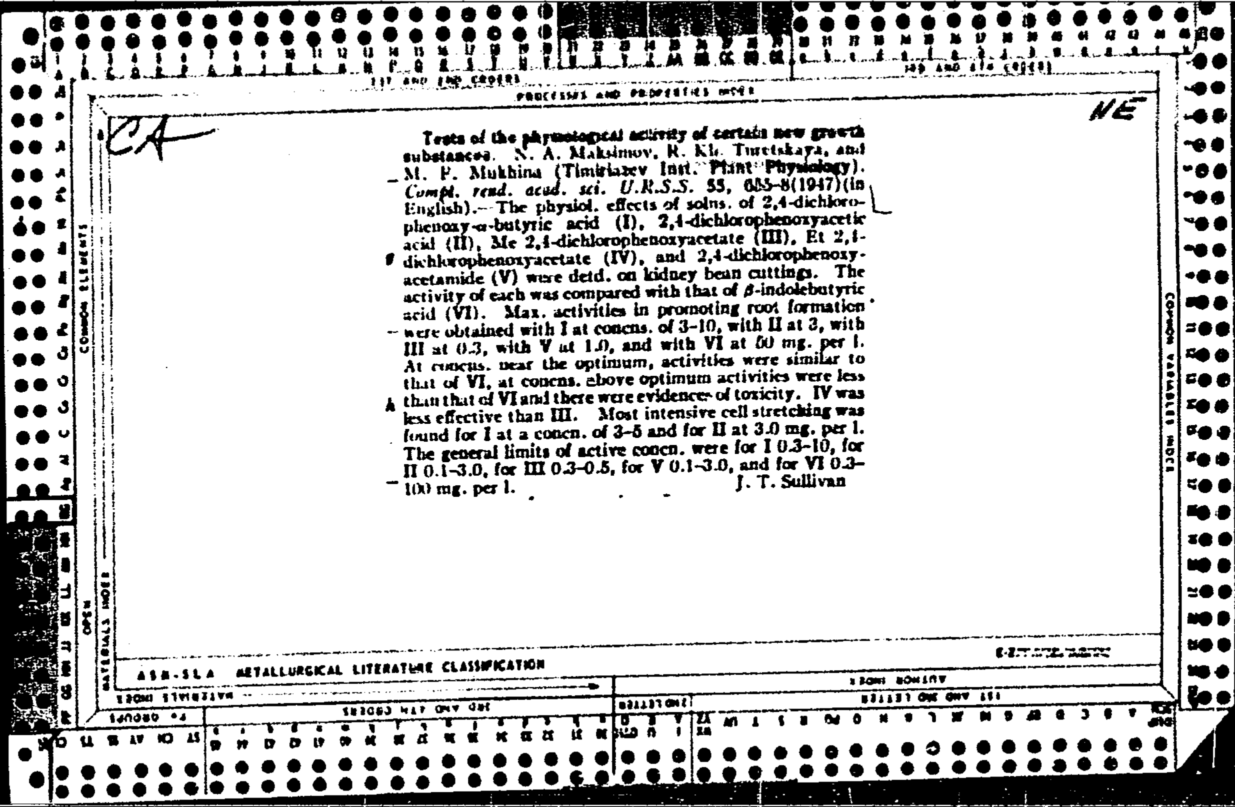
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

TUL'CHINSKAYA, K. KH.; RAKITIN, YU. V.; MAKSIMOV, N. A.

"An Attempt to Study Methods for Cultivating Gladioli as a New Raw Stuff for the Production of Vitamin C"

Compt. rend. acad. sci. URSS 47, No 2, 116-19; Doklady Akad. Nauk SSSR 47, No 2, 119-22, 1945

SO: Chemical Abstracts. Vol 40, No 13, 10 Jul 46



CA

NE

PROCESSES AND PROPERTIES INDEX

Tests of the physiological activity of certain new growth substances. N. A. Maksimov, R. Kh. Turetskaya, and M. P. Mukhina (Timiriazev Inst. Plant Physiology). *Compt. rend. acad. sci. U.R.S.S.* 55, 655-8(1947)(in English).—The physiol. effects of solns. of 2,4-dichlorophenoxy-α-butyric acid (I), 2,4-dichlorophenoxyacetic acid (II), Me 2,4-dichlorophenoxyacetate (III), Et 2,4-dichlorophenoxyacetate (IV), and 2,4-dichlorophenoxyacetamide (V) were detd. on kidney bean cuttings. The activity of each was compared with that of β-indolebutyric acid (VI). Max. activities in promoting root formation were obtained with I at concns. of 3-10, with II at 3, with III at 0.3, with V at 1.0, and with VI at 60 mg. per l. At concns. near the optimum, activities were similar to that of VI, at concns. above optimum activities were less than that of VI and there were evidences of toxicity. IV was less effective than III. Most intensive cell stretching was found for I at a concn. of 3-5 and for II at 3.0 mg. per l. The general limits of active concn. were for I 0.3-10, for II 0.1-3.0, for III 0.3-0.5, for V 0.1-3.0, and for VI 0.3-100 mg. per l.

J. T. Sullivan

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

TURETSKAYA, R. Kh.

"Method of Determining the Growth Activity Substances for Root-Formation,"

Dok. AN, 57, No. 3, 1947

TURETSKAYA, R. Kh.

25719 Turetskaya, R. Kh. Vliyaniye Razlichnykh Rostovykh Veshchesv Na Ukoreneiye Zelenykh Zelenykh Cherenkov Borodavchatogo Bereskleta (Evonymus Verrucosa Scop.)
Botan. Zhurnal, 1948, No. 1 S. 92-98- Bibliogr: s. 98

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

PA 36/49T2

USSR/Agronomy Jan/Feb 48
Plants - Growth Regulator
Rubber - Culture

"Influence of Various Growth Substances on the Rooting Ability of Green Cuttings of the Warty Spindle Tree (Evonymus Verrucosa Scop.)," [illegible]. Kh. Turetskaya, Inst Plant Physiol imeni K. A. Timiryazev, Acad Sci USSR, Moscow, 6 pp

"Botan Zhur" Vol XXXIII, No 1

Subject plant is main source of gutta-percha in USSR, where it is widely distributed. These natural growths are not enough to satisfy rubber industry's requirements, and steps recently have

[redacted] 36/49T2

USSR/Agronomy (Contd) Jan/Feb 48

been taken to create artificial plantations. Decribes experiments showing that growth substances assist root formation of cuttings, with three photographs.

[redacted] 36/49T2

TURETSKAYA, P. KH.

TU'ETSKAYA, R. KH [redacted]

USSR/Agronomy
Plants - Growth Regulators Aug 48
Plants - Nutrition

"The Effects of Growth Substances on the Growth and Development of Vegetable Plant Sprouts," R. Kh. Turetskaya, Inst Plant Physiol imeni K. A. Timiryazev, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LXI, No 6

PA 35/49T2

Attempted to increase yields of vegetable plants (cabbages, tomatoes, beets) by treating root system of their sprouts with water solutions of growth substances. Growth substances used were: beta-indolylbutyric acid, heteroauxin, alpha-naphthyl

[redacted]

35/49T2

USSR/Agronomy (Contd) Aug 48

acetic, 2,4-dichlorphenoxyacetic, and 2,4-dichlorphenoxybutyric acids. Submitted by Acad N. A. Maksimov, 28 Jun 48.

35/49T2

TURETSKAYA, P. KH.

Grafting

Some symptons which indicate readiness of wood culture shoots for grafting. Trudy Inst. fiziol. rast., 7, No. 2, 1951

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

1. TURETSKAYA, R. Kh.

2. USSR (600)

4. Botany - Physiology

7. Anatomical and physiological changes in cuttings of certain subtropical plants in the process of taking root. Dokl. AN SSSR 86 No. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

TURETSKAYA, R.Kh.

Rooting the cuttings of subtropical decorative plants depending on the anatomical and physiological state of their tissues. Trudy Inst. fiziol. rast. 8 no.1:299-325 '53. (MLRA 6:12)

1. Institut fiziologii rasteniy im. K.A.Timiryazeva Akademii nauk SSSR. (Plant propagation)

TURETSKAYA, R.Kh.

Process of root formation in cuttings of lemon and other citrus fruits and its prerequisites. Trudy Inst. fiziol. rast. 8 no.1:326-344 '53. (MLRA 6:12)

1. Institut fiziologii rasteniy im. K.A.Timiryazeva Akademii nauk SSSR. (Citrus fruits) (Plant propagation)

TURETSKAYA, R. KH.

The structure and the physiological activity of substituted phenylacetic and naphthylacetic acids. N. N. Mel'nikov, R. Kh. Turetskaya, Yu. A. Baskakov, A. N. Boyarkin, and M. S. Kuznetsova. *Doklady Akad. Nauk S.S.S.R.* 89, 953-6(1953).—Introduction of halogen into the ring of PhCH$_2$CO$_2$H increases the physiol. activity, which is greatest with Cl; Br is less active; iodine in the *p*-position does not increase activity. Most active are the 2-halo, least active the 4-halo derivs., while the 3-halo derivs. are intermediate. This is the reverse order of activity in comparison with phenoxyacetic acids. Introduction of a 2nd halogen does not change the physiol. activity, while a 3rd halogen can either reduce or increase activity. A Me group in the *p*-position reduces the activity, and 3 Me groups reduce it very much. A smaller decrease in activity is caused by a *p*-MeO group. Halogenation of *m*-MeC$_6$H$_4$OCH$_2$CO$_2$H causes increased activity, the greatest activity resulting from 4-substitution, and lesser activity from 2-halogenation. With 2,4-D as the standard which gave 100% increase of wheat coleoptile growth at 1 mg./l. concn., and heteroauxin as the standard which gave 100% increase of kidneybean root growth, the following physiol. results were obtained in plant tests; (in above order, with 1, 10, and 100 mg./l. concns. tested for the wheat growth, and 10, 50 and 100 mg./l. concns. for the kidney bean growth). *Substituted phenylacetic acids* (substituents given): *H*, m. 76°, −2%, +45%, —, —, +4%, 0%; *o-Cl*, m. 95°, +70%, +84%, —, +5%, +150%, —; *m-Cl*, m. 74°, +0%, +81%, —, —, +62%, +200%; *p-Cl*, m. 100°, +13%, +71%, —, —, +55%, +91%; *o-Br*, m. 104°, +7%, +71%, —, —, +33%, +101%; *p-Br*, m. 114°, +2%, +80%, —, —, 0%, +8%; *p-I*, m. 135°, −4%, −6%, —, —, 0%, +21%; *2,4-di-Cl*, m. 131°, +10%, +80%, —, —, +68%, +162%; *2,5-di-Cl*, m. 105°, +13%, +80%, —, —, +30%, +120%; *2,3,4-tri-Cl*, m. 136°, +40%, +71%, —, —, +150%, −60%; *2,4,5-tri-Cl analog*, m. 126°, 0%, +56%, —, —, +98%, +100%; *p-MeO*, m. 83°, —, +20%, +20%, —, 0%, 0%; *p*-Me, m. 92°, —, +5%, +6%, —, 0%, 0%; *4,3-ClMe*, m. 83°, +22%, +73%, —, —, +7%, +60%; *4,3-BrMe*, m. 81°, +20%, +71%, —, —, 14%, +90%; *6,3-ClMe*, m. 86°, −2%, +40%, —, —, 0%, −25%; *6,3-BrMe*, m. 82°, −8%, +69%, —, —, +66%, +66%; *2,4-ClMe*, m. 100°, +13%, +44%, —, —, +12%, +33%; *3,4-Me(MeO)*, m. 127°, —, +1%, +34%, —, 0%, 0%; *2,4,5-tri-Me*, m. 117°, —, +3%, −6%, —, −21%, −25%; *2,4-Me(MeO)*, m. 107°, —, −12%, +25%, —, 0%, 0%. In substituted naphthylalkylcarboxylic acids it was shown that removal of CO$_2$H from the ring by more than 1 C atom reduces the physiol. activity and the compds. with an acid group at the 1-position on C$_{10}$H$_8$ skeleton are the only active ones; substances with 2-substitution are inactive. Substitution of alkyl groups or MeO groups into the C$_{10}$H$_8$ ring leads to sharp decline in activity. The following results were obtained in biol. tests (same standards as above): Substituted 1-naphthaleneacetic acids (substituents given): *H*, m. 131°, +77%, + 169%, —, —, +92%, —; *4-MeO*, m. 144°, +2%, −12%, —, +10%, +27%, +9%; *4-Me*, m. 148°, +1%, +1%, +4%, +36%, +24%, −10%; *4-Et*, m. 129°, +9%, —, —, +9%, +6%, +27%; *4-Pr*, m. 110°, −5%, −7%, —, +24%, +50%, +32%; *4-Bu*, m. 110°, —, −14%, —, +21%, +20%, +33%. 1-C$_{10}$H$_7$COCH$_2$CH$_2$CO$_2$H, m. 132°, +9%, +60%, —, —, —, —; 1-C$_{10}$H$_7$(CH$_2$)$_3$CO$_2$H, m. 160°, +9%, +46%, —, —, —, —; 2-C$_{10}$H$_7$COCH$_2$CH$_2$CO$_2$H, m. 174°, −25%, −9%, —, —, —, —; 2-C$_{10}$H$_7$(CH$_2$)$_3$CO$_2$H, m. 109°, −3%, −5%, —, —, —, —. Most of the above acids were prepd. by the Willgerodt reaction others through the nitriles from the corresponding benzyl halides. G. M. Kosolapoff

TURETSKAYA R. Kh

Structure and physiological activity of some substituted phenoxyalkylcarboxylic acids on plants. N. N. Mel'nikov, R. Kh. Turetskaya, and K. S. Bokarev (K. A. Timiryazev Inst. Plant Physiol., Moscow). *Doklady Akad. Nauk S.S.S.R.* 90, 921-3(1953).—Tests with a large no. of substituted phenoxyalkylcarboxylic acids showed that an RO group attached to the Ph nucleus slightly raised the growth rate (kidney-bean cutting) and that a MeO gave a variable effect, the meta position giving the highest activity and the 2-position giving the lowest; the same is true for halogen substitution. An Et group in the 2-position of the acid radical raises the activity drastically, allyloxy derivs. are less active than the propoxy derivs., except for 2-allyloxyphenoxyacetic acid, which is quite active. Amides may be more or less active than the free acids; anilides of allyloxyphenoxyacetic acids are more active than the amides. 4-Methoxy-2-chlorophenoxyacetic acid is nearly as active as 3-indolebutyric acid, 4-methoxy-2-bromophenoxyacetamide is also highly active. G. M. Kosolapoff

MD

②

FD-1351

USSR/Biology

Card 1/1 : Pub. 42-4/8

Author : Turetskaya, R. Kh.

Title : On absorption and translocation of stimulants, that promote growth in peduncles, injected together with radioactive iodine

Periodical : Izv. AN SSSR, Ser. biol., 4, 35-41, 1954

Abstract : Experiments were conducted to determine the nature of stimulating action of various chemicals that promote plant growth. Growth promoting stimulants seem to intensify general metabolism within the peduncles of plants and thereby contribute to better formation of roots. The absorption and translocation of the growth stimulant, paraiodophenoxyacetic acid with radioactive iodine (I 131), is discussed. Graphs. Charts. Illustrations. Two Soviet and one non-Soviet sources.

Institution : Institute of Plant Physiology imeni K. A. Timiryazev, Academy of Sciences USSR

Submitted : August 27, 1953

TURETSKAYA R.KH.

MEL'NIKOV,N.N.; TURETSKAYA,R.Kh.; BASKAKOV,Yu.A.

Composition and physiological activity of alkyl and aryl phenoxyacetic acids and their derivatives. Fiziol.rast.2 no.3:267-270 My-Je '55. (MIRA 8:11)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva Akademii nauk SSSR, Moscow
(Agricultural chemicals) (Acetic acid)

TURETSKAYA, R.Kh.

Regeneration of potato cutting roots in relation to their age and the phases of the plant development. Trudy Inst. fiziol. rast. 9:203-214 '55. (MIRA 8:8)

1. Institut fiziologii rasteniy im. K.A.Timiryazeva Akademii nauk SSSR.
(Potatoes) (Regeneration (Botany))

[illegible] R Kh

TURETSKAYA, R.Kh(Moscow)

Physiology of the action of growth stimulantes in the propagation of plants by cuttings. Usp.sovr.biol.40 no.1:68-77 Jl-Ag '55. (MLRA 8:10)
(GROWTH PROMOTING SUBSTANCES) (PLANT CUTTINGS)

TURETSKAYA, R. Kh.

Anatomophysiological changes in cuttings of some fruit-berry plants during rooting. R. Kh. Turetskaya (K. A. Timiryazev Inst. Plant Physiol., Moscow). *Fiziol. Rastenii* **3**, 142-8(1956).—During formation of the callus and roots in cuttings of plants, the following changes are observed (apple, cherry, and currant plants under test). The cellulosic ring is widened, and several layers of new cells precede the root formation. Peroxidase activity rises, especially in the callus. Sugars decline, starch is partly hydrolyzed, and the amino-acid content rises. G. M. Kosolapoff

1

TURETSKAYA, R A

ANDRIANOV, K.A.; GOLUBTSOV, S.A.; TROFIMOVA, I.V.; DENISOVA, A.S.;
TURETSKAYA, R.A.

Role of copper in reactions between ethyl chloride and silicon.
Dokl.AN SSSR 108 no.3:465 My '56. (MLRA 9:8)

1. Chlen-korrespondent AN SSSR (for Andrianov).
(Ethane) (Silicon organic compounds) (Copper)

KEFELI, V.I.; TURETSKAYA, R.Kh.; SARAPUU, L.P.

Identification of physiologically active indole and phenol plant growth regulating compounds. Fiziol. rast. 11 no.5:853-861 S-O '64. (MIRA 17:10)

1. Timiriazev Institute of Plant Physiology, U.S.S.R., Academy of Sciences, Moscow.

KEFELI, V.I.; TURETSKAYA, R.Kh.

Participation of phenolic compounds in the inhibition of auxin activity and suppression of the growth of willow shoots. Fiziol. rast. 12 no.4:638-645 Jl-Ag '65.

(MIRA 18:12)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva AN SSSR, Moskva. Submitted August 25, 1964.

TURETSKAYA, R.Kh.; KOF, E.M.

Dynamics of auxin and inhibitor changes in green and etiolated bean cuttings in the process of root formation. Dokl. AN SSSR 164 no.1:219-222 S '65. (MIRA 18:9)

1. Institut fiziologii rasteniy im. K.A. Timiryazeva AN SSSR. Submitted August 17, 1964.

CHAYLAKHYAN, M.K.; TURETSKAYA, R.Kh.; NEKRASOVA, T.V.; KEFELI, V.I.;
SUKHAREVA, Z.I.

Period of dormancy and change in the content of physiologically active substances in peach seedlings. Dokl. AN Arm. SSR 40 no.4:243-247 '65. (MIRA 18:6)

1. Institut fiziologii rasteniy imeni Timiryazeva AN SSSR.
2. Chlen-korrespondent AN Armyanskoy SSR (for Chaylakhyan).
Submitted September 15, 1964.

KEFELI, V.I.; TURETSKAYA, R.Kh. (Moskva)

Mechanism of the action of natural plant growth inhibitors. Usp. sovr.biol. 57 no.1:99-114 Ja-F '64. (MIRA 17:5)

KEFELI, V.I.; TURETSKAYA, R.Kh.

Method for determining the free auxins and inhibitors in woody plant tissues. Fiziol. rast. 10 no.4:493-496 Jl-Ag '63. (MIRA 16:8)

1. Timiriazev Institute of Plant Physiology, U.S.S.R. Academy of Sciences, Moscow.

TURETSKAYA, R.Kh.; KEFELI, V.I.; KOF, E.M.

Interaction of heteroauxin and gibberellin during the formation of roots and shoots in willow cuttings. Dokl. AN SSSR 148 no.2: 461-464 Ja '63. (MIRA 16:2)

1. Institut fiziologii rasteniy im. K.A. Timiryazeva AN SSSR. Predstavleno akademikom A.L. Kursanovym.
(Indoleacetic acid) (Gibberellin) (Plant cuttings)

TURETSKAYA, R.Kh.; KEFELI, V.I.

Some characteristics of natural plant growth inhibitors. Fiziol. rast. 10 no.1:98-104 Ja-F '63. (MIRA 16:5)

1. K.A.Timiriazev Institute of Plant Physiology, U.S.S.R. Academy of Sciences, Moscow.
(Growth inhibiting substances)

TURETSKAYA, R.Kh.

Use of growth promoting substances in propagating fruit, berry, forest and ornamental plants by cuttings. Fiziol. rast. 6 no.4:494-499 Jl-Ag '59. (MIRA 12:10)

1.K.A. Timiriazev Institute of Plant Physiology U.S.S.R. Academy of Sciences, Moscow.
(Growth promoting substances) (Plant cuttings)

CHAYLAKHYAN, M.Kh.; TURETSKAYA, R.Kh.; KLYUSHKINA, N.S.

Interaction of physiologically active substances in plant cuttings during the formation and growth of roots and stems. Fiziol.rast. 8 no.5:601-612 '61. (MIRA 14:10)

1. Timiriazev Institute of Plant Physiology, U.S.S.R. Academy of Sciences, Moscow.
(Growth promoting substances) (Growth inhibiting substances)
(Plant cuttings)

TURETSKAYA, R.Kh.

Speeding up the formation of roots. Itogi nauki: Biol.nauki no.2: 273-296 '53. (MIRA 14:4)

(Growth promoting substances) (Roots (Botany))

TURETSKAYA, Rakhil' Khaimovna; CHAYLAKHYAN, M.Kh., otv. red.; IVANOV, V.P., red. izd-va; POLYAKOVA, T.V., tekhn. red.

[Growth stimulators and the physiology of root formation in plant cuttings] Fiziologiia korneobrazovaniia u cherenkov i stimuliatory rosta. Moskva, Izd-vo Akad. nauk SSSR, 1961. 279 p. (MIRA 14:9)

1. Chlen-korrespondent AN Armyanskoy SSR (for Chaylakhyan).
(Plant cuttings) (Growth promoting substances)

TURETSKAYA, Rakhil' Khaimovna, for Doc~~tor~~ of Biological Sci~~ences~~ on the basis of dissertation defended 27 Feb 60 in Council of the Inst~~it~~ ~~tute~~ of Plant Physiology im. Timiryazev of the Acad Sci USSR, entitled: "Physiological Principles of Plant Reproduction Through Graftings with the Use ~~Applicatio~~n of Growth Stimulants." (BMVisSO USSR, 2-61, 25)

TURETSKAYA, R.Kh.

Role of leaves and buds in the formation of roots in stem cuttings. Fiziol. rast. 7 no. 5:531-536 '60. (MIRA 13:10)

1. K.A. Timiriazev Institute of Plant Physiology, U.S.S.R., Academy of Sciences, Moscow.

(Plant cuttings)

Y

COUNTRY : USSR
CATEGORY : Plant Physiology. Growth and Development.

ABS. JOUR. : RZhBiol., No. 5, 1959, No. 19980

AUTHOR : Turetskaya, R.Kh.
INST. : Inst. of Plant Physiology AS USSR
TITLE : Growth and Regenerative Capacity of Plants

ORIG. PUB. : Sb. Pamyati akad. N.A. Maksimova, M, AN SSSR, 1957, 173-185

ABSTRACT : At the Institute of Plant Physiology of the Academy of Sciences a study was made of the anatomical and physiological reasons for the differences in rooting ability of cuttings from different varieties of the same species of fruit and berry plants (apples, cherries, red and black currants). Slips were cut from the upper part of the shoots (the green top was discarded) on 9, 14, 21, 29 June, 5 and 12 July; before planting they were treated with

CARD: 1/3

[illegible] :

[illegible] :

[illegible] : [illegible] 5, 1959, [illegible] 19580

[illegible] :

[illegible] :

[illegible] :

[illegible] :

[illegible] : acid contents, a drop in peroxidase activity, in water content and water holding capacity of the tissues, and an accumulation of starch and fats. As the intensity of the physiological biochemical processes lessens it is accompanied by a lowering of the regenerative capacity of the tissues. The Bibliography lists 22 titles. -- L.K. Pollakchuk

[illegible] : 3/3

14

TURETSKAYA, R. Kh., Doc Biol Sci (diss) -- "The physiological principles of plant propagation by grafts using growth stimulators". Moscow, 1960. 43 pp (Acad Sci USSR, Inst of Plant Physiology im K. A. Timiryazev), 200 copies (KL, No 10, 1960, 127)

USSR/Cultivated Plants - Fruits, Berries. M-6

Abs Jour : Ref Zhur - Biol., No 20, 1958, 91854

Author : Turetskaya, R.Kh.

Inst : AS USSR

Title : The Effect of Growth Stimulators and Habitat on Overcoming Polarity in Grape and Cherry Cuttings.

Orig Pub : Dokl. AN SSSR, 1957, 116, No 4, 699-702.

Abstract : This is a report on the studies in polarity displacement during root formation on the green cuttings of Russian Concord grapes variety and the Polevka variety cherry by means of growth stimulators, darkness and close to freezing temperatures. The studies were conducted at the Institute of Plant Physiology of the Academy of Sciences of USSR. The treatment of the tops or bases of the green grape cuttings with heteroauxine and with IMK for the

Card 1/3

USSR/Cultivated Plants - Fruits. Berries. M-6

Abs Jour : Ref Zhur - Biol., No 20, 1958, 91854

to the preliminary low above zero temperature. -- A. Ch. Kelli.

Card 3/3

TURETSKAYA R.KH.

USSR/Physiology of Plants - Growth and Development. I-4

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10416

Author : Turetskaya, R.Kh.

Inst : Institute of Physiology of Plants, Academy of Sciences USSR

Title : The Radiocarbon Method of Studying the Intake and Distribution of Growth Stimulators in Plant Cuttings.

Orig Pub : Fiziol. rasteniy, 1957, 4, No 1, 44-51

Abstract : The radioautographic method was used to study the absorption and distribution of -naphthyl-acetic acid, marked in carboxyl C^{14}, in Polevka cherry, black currant, and balsam cuttings. The tops or the bottoms of the cuttings were immersed in the solution. In planting the cuttings they were set out in either the normal or the upside down position. The -naphthyl-acetic acid spread very rapidly throughout all the fibers of the balsam and black currant

Card 1/3

USSR/Physiology of Plants - Growth and Development.

I-4

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10416

Physiology of Plants, Academy of Sciences USSR.
Bibliography of 31 titles.

Card 3/3

Turetskaya R. Kh.

AUTHOR: Turetskaya, R. Kh. 20-4-48/51

TITLE: The Influence of Growth Stimulants and External Agencies on the Overcoming of Polarity by Vine and Cherry Cuttings. (Vliyaniye stimulyatorov rosta i vneshney sredy na preodoleniye polyarnosti u cherenkov vinograda i vishni).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 4, pp. 699-702 (USSR).

ABSTRACT: The polarity which is expressed in the morphological-physiological differences of the pole ends serves as basis for the permanent interaction of the single organs in the vegetable organism. By various inner and exterior conditions it is possible to overcome the polarity or to displace it. The latter is of interest for the domination of the process of root- and shoot formations in unusual places. In present case it was intended to influence the polarity in the root formation of the vine and cherry cuttings by means of the growth stimulant, darkness, and low temperatures above zero. The experiments were carried out in the boxes of the glass-house. River sand was used as substratum. After treating the vine and cherry cuttings with "heteroauxin" solution or "IMK" the roots developed on the basis as well as on the morphological tops if the cuttings were planted inversely. When it was attempted to influence the polarity by means

Card 1/3

of previous darkening of the cuttings on the mother plant the cherry cuttings did not react. Though in the case of vine cuttings the darkening effected a root formation, the polarity was, however, overcome only after the treatment with "heteroauxin" solution. However, the process of root formation was accelerated by the darkening of the cuttings. At lower temperatures the vine cuttings treated simultaneously with "heteroauxin" solution show a tendency towards accelerated root formation. In the case of inversely planted cuttings the low temperature effected, together with the"heteroauxin" treatment, a simultaneous root formation on the basis and on the morphological tops. The cherry cuttings did not react to the temperature reduction. The influence of the length of the cuttings on the overcoming of polarity is to be seen in table 3. Here it is shown that the same factors which in normally orientated cuttings support the root formation; sufficient length of the cuttings, treatment with the growth stimulant, influence of darkness, low temperature above zero, contribute in the case of inversely planted cuttings towards the overcoming of polarity.

Card 2/3 There are 1 figure, 3 tables and 13 references, 8 of which are Slavic.

The Influence of Growth Stimulants and External Agencies on the Overcoming of Polarity by Vine and Cherry Cuttings. 20-4-48/51

PRESENTED: June 27, 1957, by A. L. Kursanov, Academician.

SUBMITTED: June 27, 1957.

AVAILABLE: Library of Congress.

Card 3/3

TURETSKAYA, R.Kh.

Studying the uptake and distribution of growth stimulants in plant cuttings with the aid of radioactive carbon [with summary in English]. Fiziol.rast. 4 no.1:44-51 Ja-F '57. (MLRA 10:5)

1.Institut fiziologii rasteniy im. K.A. Timiryazeva Akademii nauk SSSR, Moskva.

(Growth promoting substances)
(Plant cuttings) (Carbon--Isotopes)

POPELYUK, P.F., dotsent; TURETSKAYA, R.S., assistent; YANKELEVICH,
Ya.Kh., ordinator

Clinical analysis of atypical forms of acute myocardial infarction; clinical data for a ten year period. Nauch.trudy L'vov.obl.terap. ob-va no.1:217-224 '61. (MIRA 16:5)

(HEART—INFARCTION)

BIR, Sh.S.; KAPLAN, B.Ya.; KULESHA, V.S.; MARKEVICH, V.G.;
ORENSHTEYN, E.I.; RAPPOPORT, T.L.; SMORODSKIY, P.V.;
SOKOLOV, D.Yu.; TURETSKAYA, S.S.; FLESHNER, I.K.;
ABLOVA, A.A., red.; ~~SMUL'SKAYA, T.K.~~, red.l-leksikograf;
LICHACHEVA, L.V., tekhn. red.

[Polish-Russian polytechnical dictionary] Pol'sko-russkii politekhnicheskii slovar'. Moskva, Fizmatgiz, 1963. 515 p. (MIRA 16:11)
(Polish language--Dictionaries--Russian)
(Technology--Dictionaries)

S/080/62/035/007/006/013
D214/D307

AUTHORS: Turetskaya, T.A., Golubtsov, S.A., Tromimova, I.V. and Andrianov, K.A.

TITLE: The influence of additions of some metals on the activity of silicon-copper alloy in its reaction with ethyl chloride

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 7, 1962, 1496-1502

TEXT: The general and selective activities of Si-Cu alloys in the reaction with EtCl to give a mixture of ethyl chlorosilanes are affected by the chemical nature of the alloy. The presence of 1-2% Fe, Al, Ca or Ti in the alloy increases its general activity, while Al, Ca and Ti also increase its selective activity by increasing the yield of $EtSiHCl_2$. The increase in activity is more evident at low Cu concentrations. The added metals are localized at the interphase boundaries in the alloy, these being the active centers in the reaction. The influence Ca bears on the activity of the

Card 1/2

The influence of additions ...

S/080/62/035/007/006/013
D214/D307

of the alloy is affected by the presence of other metals. Fe in concentrations of up to 10%, does not influence the process. Concentrations of Bi and Sb of the order of 0.001% influence the selective activity and increase the yield of Et_2SiCl_2. Pb, in these concentrations, acts as a catalytic poison. At higher concentrations, both Bi and Sb also become poisons and at concentrations of 0.01% these metals render the alloy inactive. The mechanism of the action of the added metals cannot as yet be explained. There are 4 figures and 6 tables.

SUBMITTED: December 9, 1960

Card 2/2

L 29678-66

ACC NR: AP6012856 SOURCE CODE: UR/0386/66/004/004/0327/0329

AUTHOR: Volod'ko, L. V.; Turetskaya, Ye. A.

35

B

ORG: none

TITLE: Dependence of the luminescence spectra of organic solutions of uranyl salts on the wavelength of the exciting light

SOURCE: Zhurnal prikladnoy spektroskopii, v. 4, no. 4, 1966, 327-329

TOPIC TAGS: uranyl nitrate, uranium compound, luminescence spectrum, excited state, light excitation, optic center, organic solvent

ABSTRACT: This is a continuation of earlier work by the authors (ZhPS v. 3, 248, 1965) dealing with the emission spectra and the durations of the excited states of uranyl salt solutions. To check whether the experimentally measured absorption spectrum of the solutions in questions is, in analogy with the emission spectrum, a composite spectrum due to two different absorption centers, the authors have investigated the excitation spectra of solutions of uranyl salts in different solvents at fixed luminescene wavelengths. The experimental setup was described elsewhere (DAN SSSR v. 155, 197, 1964). Solutions of uranyl acetate in propyl and ethyl alcohol and of uranyl nitrate in the same solvents were investigated at 77K.

Card 1/2

UDC: 535.37

L 29678-66
ACC NR: AP6012856

0

Measurements made at wavelengths corresponding to the maxima of the spectra of the salts showed that the energy migration between the different complexes of the investigated solution is either negligible or nonexistent. Measurements of the luminescence spectra at different wavelengths of the exciting light and of the dependence of the emission spectra on the wavelengths of the excited light demonstrated the presence of two absorption centers and luminescence centers in each solution and the weak interaction between them. The authors thank V. P. Bobrovich and G. S. Kembrovskiy for providing the apparatus for the measurement of the excitation spectra. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 02Jul65/ ORIG REF: 003/ OTH REF: 001

Card 2/2

L 5446-66 EWT(l)/EWT(m)/T/EWP(j) IJP(c) RM

ACC NR: AP5025092 44,55 SOURCE CODE: UR/0368/65/003/003/0248/0253

AUTHORS: Volod'ko, L. V.; Turetskaya, Ye. A. 44,55

38
37
B

ORG: none

21,44,55

TITLE: Luminescence spectra of organic solutions of uranyl salts for various stages of de-excitation

SOURCE: Zhurnal prikladnoy spektroskopii, v. 3, no. 3, 1965, 248-253

TOPIC TAGS: luminescence, luminescence research, luminescence spectrum, luminescence yield, luminescence electron

ABSTRACT: Luminescence spectra and damping curves for various stages of de-excitation of methanol, ethanol, propanol, 2-methyl ethanol, butanol, 2-methyl propanol, aceton methylethylketone and diethyl ether solutions of uranyl nitrate and uranyl acetate at 77K were investigated. The work was undertaken to elucidate the complex electronic spectral structure of uranyl salt solutions. The apparatus used in the investigation is shown schematically (see Fig. 1),

Card 1/4 UDC: 535.37

0901 2230

L 5446-66

ACC NR: AP5025092

0

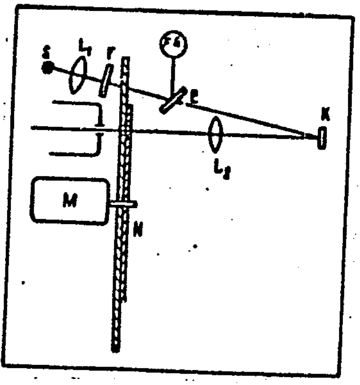


Fig. 1. Schematic of the optical installation: K- specimen, S - light source, L_1 - quartz lens, F - 365 mμ filter, E - semi-transparent mirror, FE - feedback stabilizing source S, N - universal phosphoroscope, M - rotating motors

and the experimental results are shown graphically (see Fig. 2).

Card 2/4

L 5446-66

ACC NR: AP5025092

0

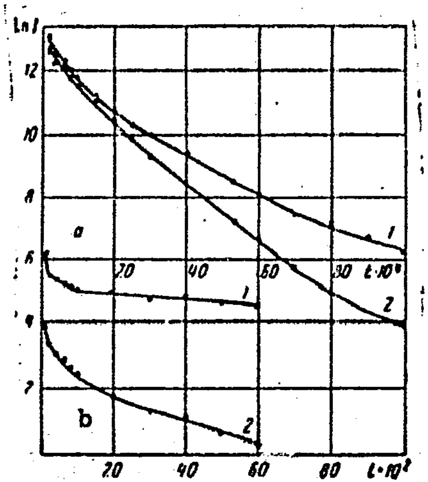


Fig. 2. Luminescence damping curves for propanol solution of (1) uranyl acetate and (2) uranyl nitrate at 77K. a - time scale 10^{-4} sec; b - time scale 10^{-2} sec

Card 3/4

L 5446-66

ACC NR: AP5025092

The lifetimes of the excited states in the various solutions were determined and are presented in tabular form. It is concluded that in each solution three different luminescence centers are present, two of which belong to two different uranyl complexes--most probably to the subhydrates of the uranyl salts. Orig. art. has: 3 tables and 3 graphs.

SUB CODE: OP,GC/ SUBM DATE: 29Mar65/ ORIG REF: 008/ OTH REF: 002

Card 4/4

TURETSKAYA, Ye.S.

Studies on goitrous thyroid glands for iodine and bromine content. Probl.endok.i gorm. 7 no.2:75-80 '61. (MIRA 14:5)
(IODINE) (BROMINE) (GOITER)

TURETSKAYA, E. E.

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

E

H

4782. INVESTIGATION OF ATMOSPHERIC AIR IN QUENCHING OF COKE WITH PHENOLIC WATERS OF COKING PLANTS. II. Kalyuzhnyi, D. N., Volova, L. M. and Turetskaya, E. E. (Gigiena i Sanit., 1948, vol. 13, (5), 11-15; abstr. in Chem. Abstr., 1948, vol. 42, 9121-9122).

Phenols are present in the air, only if they were contained originally in the water used for quenching. With the use of phenol-containing waste waters, the air around some coking plants contained 0.08-0.09 and 0.03 m.g./cu.m. phenols at a distance of 500 and 1000 m. respectively from the towers. About 70% of the original phenols in the water are burned in the process of quenching. The use of the phenolic waste waters is unobjectionable ~~off~~ if prelimiarily fredd from tars and oils.

H

14

COMMON ELEMENTS

COMMON VARIABLES INDEX

OPEN

MATERIALS INDEX

TURETSKITE, A.A.

Some problems in the clinical aspects and treatment of rheumatic lesions of the peripheral nervous system. Sov.med. 26 no.7:92-97 Jl '62. (MIRA 15:11)

1. Iz 1-y Sovetskoy klinicheskoy bol'nitsy (glavnyy vrach V.B. Bernatskis), Vil'nyus.
(NERVES, PERIPHERAL—DISEASES) (SCIATICA) (RHEUMATIC FEVER)

TURETSKITE, T.A. [Tureckyte, T]; FINKEL'SHTEYN, Yu.A. (Vil'nyus)

Epileptic syndrome in acute cerebrovascular disorders. Klin. med. 41 no.9:77-81 S'63 (MIRA 17:3)

1. Iz 1-y sovetskoy klinicheskoy bol'nitsy (glavnyy vrach V.B. Bernatskas [V. Bernackas], Vil'nyus.

TURETSKITE, T.A.

Some peculiarities of neurobrucellosis in the southern Baltic area.
Sov. med. 24 no.6:45-50 Je '60. (MIRA 13:9)

1. Iz I Sovetskoy klinicheskoy bol'nitsy (glavnyy vrach V.B. Bernatskis) Vil'nyusa.
(BALTIC SEA REGION--BRUCELLOSIS)

TURETSKIY, A. Kh.

O nekotorykh ekstremal'nykh sboystvakh Polinomov. Khrk, zap. Matam. T.-Va. (4) 17 (1940), 45-64.

SO: Mathematics in the USSR, 1917-1947
edited by Jurosh, A. G.,
Markushevich, A. I.,
Rashevskiy, P. K.,
Moscow-Leningard, 1948

TURETSKIY, A. Kh.

K voprosu ob ogranichenii interpolyatsionnykh polinomov. DAN, 41 (1943), 205-208.

SO: Mathematics in the USSR, 1917-1947
edited by Jurosh, A. G.,
Markushevich, A. I.,
Rashevskiy, P. K.
Moscow-Leningard, 1948

~~ТУРЕЦКИЙ, А.Х.~~

TURETSKIY, A. KH.

Tureckiĭ, A. H. **On an extremal property of trigonometric polynomials satisfying a differential relation at isolated points of the interval.** Doklady Akad. Nauk SSSR (N.S.) 50, 65–68 (1945). (Russian)

Let $P_n(x)$ be a trigonometric polynomial of degree n. The author determines, by means of an interpolation formula, the maximum of $|P_n(x)|$ given that

$$|aP_n''(x_k)+bP_n'(x_k)+cP_n(x_k)|\leqq 1,$$

where $x_k=2k\pi/(2n+1)$. He discusses the asymptotic behavior of the maximum for various relationships among a, b, c. *R. P. Boas, Jr.* (Evanston, Ill.).

So: MATHEMATICAL REVIEW (Unclassified)
Vol XIV, No 6, June 1953, pp 523-608

So: MATHEMATICAL REVIEW (Unclassified)
[illegible] June 1953, pp 523-608

TURETSKIY, A. Kh.

Asimptoticheskiye neravenstva dlya trigonometricheskikh polinomov, udovletvoryayushchikh v nekotoroy sisteme tochek differentsial'nomo sootnosheniyu, IAN, ser MATEM, 10 (1946), 487-512.

SO: Mathematics in the USSR, 1917-1947
edited by Jurosh, A. G.,
Markushevich, A.I.,
Rashevskiy, P. K.
Moscow-Leningard, 1948

TIDETSKIY A. Kh.

TURETSKIY, A. Kh.

USSR/Mathematics

Card 1/1 Pub. 22 - 6/47

Authors : Turetskiy, A. Kh.

Title : On the best approximation of periodic differentiable functions in space L

Periodical : Dok. AN SSSR 101/6, 1001 - 1005, Apr. 21, 1955

Abstract : A solution is presented of the A. N. Kolmogorov problem, which consists in finding a quantity

$$D_n(F) = \inf_{\varphi_i} \sup_{f \in F} \inf_{c_i} \rho(f, \varphi),$$

where $\rho(f, \varphi)$ is a deviation of the function f from an n-term polynomial:

$$\varphi = c_1 \varphi_1 + c_2 \varphi_2 + \ldots + c_n \varphi_n .$$

The solution of the problem is given with an additional condition, i. e., the system of functions $\varphi_1 \cdots \varphi_n$ is sought among the Chebyshov systems, i. e., such systems of continuous functions in which any n-term polynomial, in the range between 0 and 2π, has no more than (n-1) zeros. Four references: 2 USA and 2 USSR (1936-1954).

Institution: Belorussian V. I. Lenin State University

Presented by: Academician A. N. Kolmogorov, January 5, 1955

TURETSKIY, A.Kh.

Note on the inverse problem in approximation theory in the L metric. Vestsi AN BSSR. Ser.fiz.-mat.nav. no.2:5-8 '65. (MIRA 19:1)

TURETSKIY, A.Kh. (Minsk)

A class of functions for which a given summation method furnishes
an approximation of the best order. Izv.vys.ucheb.zav.; mat.
no.5:132-139 '65. (MIRA 18:10)

TURETSKIY, A.Kh.

Existence of Chebyshev quadrature formulae for an infinite interval. Vestsi AN BSSR. Ser. fiz.-tekh. nav. no.2:119-120 '62. (MIRA 18:4)

TURETSKIY, A.Kh.

Note to the article of L.N. Chakalov "General quadrature formulas of the Gauss type." Uch. zap. BGU no.1:19-26 '59. (MIRA 12:11)

(Integrals) (Interpolation)